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ABSTRACT

This competency-based teacher education cognitive development module consists of a curriculum building component. Enabling elements of the module encompass writing behavioral objectives, classifying objectives by criteria type, designing flow charts, developing assessment procedures, specifying enabling activities, and outlining module and component format. Each element of the module presents learning activities, assessment criteria, and a specified sequence of activities when appropriate. (MJM)

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Component: Curriculum Building
Module: Cognitive Development re. Competency Based Teacher Education
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(Final Draft September 12, 1971)

WRITE BEHAVIORAL OBJECTIVES
(EE 001.03.9.1)

from

TTL-001.03 (USC)

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Enabling Element .001.03.9.1

Write Behavioral Objectives

Prospectus

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The objective for this enabling element is:

> The participant writes and classifies (according to the taxonomies of Bloom and Krathwohl) mechanically precise behavioral objectives.

Behavioral objectives describe observable student behavior which will occur if the teacher's goals are met. This approach to planning of learning provides for clear means of determining 1) learning strategies and/or approaches, 2) possible use of media, 3) evaluation methods and procedures, and 4) clear student understanding of what is expected.

.001.03.9.1.1 The benefits described above are clearly exemplified in Writing Behavioral Objectives, by David E. Hernandez. Work through this programmed book. A copy is located in the Resources Center.

.001.03.9.1.2 Observable student behavior can be divided into three categories, or "domains": the cognitive, affective, and psycho-motor. Bloom's Taxonomy of Educational Objectives classifies the cognitive, or intellectual, domain.

Step One: Read pages 201 to 207 of Bloom. If any of the levels are unclear, or if you wish to have more information, look up the appropriate sections(s) beginning on page 62.

Step Two: For the following stated behavioral objectives, determine the category from Bloom which they fit. Write the category label in the blank to the left of the objective.

_____ 1. Can design instruments to inventory the physical needs of students.

_____ 2. Can determine the feasibility of a suggested resource.

_____ 3. In class, with no references, the student can list and define, in writing or orally, the three criteria for specific objectives.

_____ 4. Can coordinate the school program with other community institutions.

_____5. Can interpret the content through which the behavior is to be developed.

_____6. Is able to analyze the accumulated records of the learner.

When you have completed this exercise, turn to page 3 to check your answers.

ANSWERS TO COGNITIVE LEVELS

1. Synthesis
2. Evaluation
3. Knowledge
4. Application
5. Comprehension
6. Analysis

If you missed one of the six, you may wish to review the appropriate section in Bloom.

If you missed more than one of the six, re-read the appropriate sections in Bloom.

Now think back to the initial experience of flying a kite. Write six behavioral objectives (one for each level of Bloom) which you would like to have participants achieve through such an experience.

Check your six objectives against the Bloom and Hernandez books to be sure they have the three essential elements and fit the correct category.

.001.03.9.1.3 The affective, or attitudinal, doman is classified in Krathwohl's Taxonomy of Educational Objectives. Read pages 176 to 185. If any of the levels are unclear, or if you wish to have more information, look up the appropriate section(s) beginning on page 95.

For the following stated behavioral objectives, determine the category from Krathwohl which they fit. Write the category label in the blank to the left of the objective.

_____ 1. Given an enabling element in writing behavioral objectives, the learner completes the element.

_____ 2. Characteristically assesses and evaluates pupil progress periodically.

_____ 3. During the initial stages of his internship, the learner observes with increasing differentiation the sights and sounds encountered in school.

_____ 4. Characteristically assesses and evaluates pupil progress periodically.

_____ 5. When working with a team, the learner assumes responsibility for drawing reticent members of a group into conversation.

When you have completed this exercise, turn to page 6. to check your answers.

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ANSWERS TO AFFECTIVE LEVELS

1. Responding
2. Organization
3. Receiving
4. Characterization by a Value or a Value Complex
5. Valuing

If you missed one of the five, you may wish to review the appropriate section of Krathwohl.

If you missed more than one, re-read the appropriate sections in Krathwohl.

Think again of the kite flying experience. Write 5 behavioral objectives (one for each level of Krathwohl) which you would like to have participants achieve through such an experience.

Check your five objectives against the Krathwohl book to be sure they have the three essential elements and fit the correct category.

CLASSIFY OBJECTIVES BY CRITERIA TYPE
(EE 001.03.9.2)

from

TTL-001.03 (USC)

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CLASSIFY OBJECTIVES BY CRITERIA TYPE

1A. In this element you will classify criteria-based objectives according to the types of criteria used in assessing teacher competencies. The objective is:

> Given descriptions and examples of each type of criteria-based objective, classify objectives according to type with 80% accuracy.

The element is arranged in "scrambled" format and throughout the element you will be asked to respond to questions by selecting from given alternatives. INDICATE YOUR SELECTION BY PLACING A CHECK MARK IN THE BLANK BEFORE THE ALTERNATIVE AND FOLLOW THE INSTRUCTIONS GIVEN AT THE END OF YOUR SELECTION . . . .

The primary function of criteria-based objectives is to define student competencies and criteria to be applied in assessing competencies. In teacher education, competencies are defined as being those attitudes, understandings, skills, and behaviors which facilitate intellectual, social, emotional, and physical growth in children. Three types of criteria are applied to assessing student competencies. These are:

Cognitive-based criteria which are used to assess knowledge and understandings;

Performance-based criteria which are applied in assessing teaching behaviors;

Consequence-based criteria which are used to assess competence by examining achievement of pupils taught by the teacher.

An objective which calls for a prospective teacher to view a movie and submit a written report would be an example of a

_____Cognitive-based Objective (go to 3A)
_____Performance-based Objective (go to 2B)
_____Consequence-based Objective (go to 4A)

1B. The objective you have chosen calls for assessment on the basis of pupil performance. An exploratory objective would not define the criterion measure in terms of a prospective teacher's ability to bring about change in others. Return to 7C and select another alternative.

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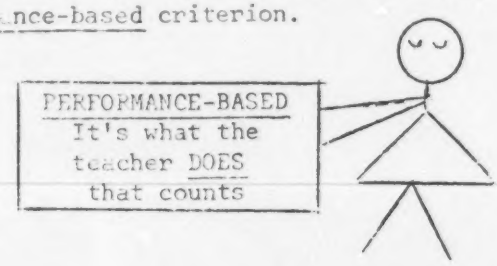
1C. A performance-based objective focuses on the ability to draw upon knowledge, skills, and behaviors in order to perform in a teaching situation. While it is certainly necessary for a prospective teacher to understand a concept before he teaches it, an objective written with the criterion you selected calls only for cognitive knowledge, not for the demonstration of ability to teach the concept. Return to 6A and select a performance-based criterion.



2A. Right! The criterion you selected calls for the student to be assessed on the basis of knowledge he has acquired about an inquiry technique. If the prospective teacher were required to use the technique with peers or pupils, the criterion and thus the objective, would not be cognitive-based. If the prospective teacher were reqired to employ the Suchman Inquiry technique in the teaching of a concept, the objective would be classified as a performance-based objective.

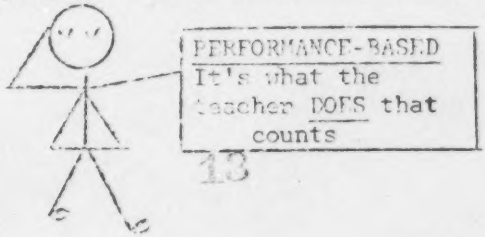
Performance-based objectives require the demonstration of prescribed teaching behaviors under simulated or real conditions. The prospective teacher is evaluated on the basis of his being able to apply knowledge he has acquired about teaching skills and techniques in order to put them to use.

Performance-based objectives assess a prospective teacher's

_____Ability to bring about change in others. (go to 5B)
_____Intellectual knowledge and abilities. (go to 7B)
_____Ability to demonstrate prescribed teaching behaviors. (go to 6A)

2B. This objective is classified as a cognitive-based objective as the criterion calls for a behavior which demonstrates cognitive knowledge and understanding. For more information about cognitive-based objectives go to 3A.

2C. Whoa! You're getting ahead of us. When a prospective teacher teaches a concept to pupils, we're certainly interested in whether or not learning takes place. However, performance-based objectives are not written to assess the teacher's ability to bring about learning. Return to 6A and select another criterion.



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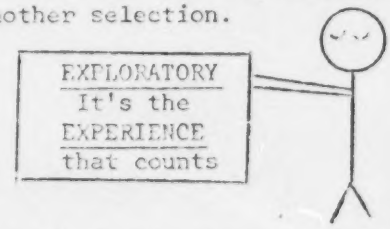
3A. In this objective the student is required to demonstrate knowledge and understandings. Cognitive-based objectives may call for behavior at any of the taxonomic levels identified by Benjamin Bloom and his associates or in similar classification systems. The prospective teacher is evaluated on the basis of the intellectual skills or abilities required in the objective. In other words, a student in teacher-education may be assessed on the basis of what he knows about teaching, not how well he can perform teaching acts, nor how successful he is in getting children to learn. Select the appropriate cognitive-based criterion for the following objective:

Following a demonstration on the Suchman Inquiry technique the prospective teacher

____ Writes a brief summary describing the technique and its uses. (go to 2A)
____ Employs the technique in teaching a concept to students. (go to 4B)
____ Teaches the rules to children who then can use the technique during an inquiry session. (go to 6B)

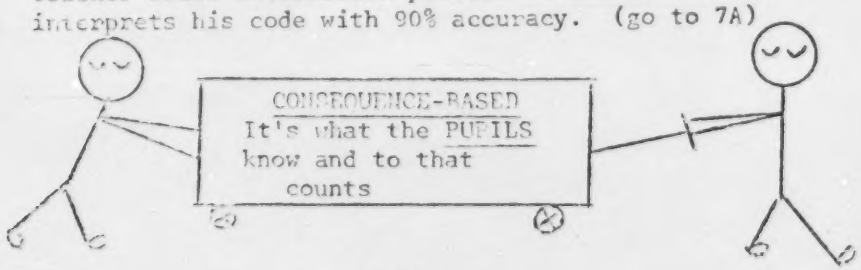
3B. The objective you selected has a cognitive-based criterion. Exploratory objectives do not call for a given cognitive behavior. Return to 7C and make another selection.



3C. In consequenced-based objectives, the achievement of pupils taught by the prospective teacher is examined to assess the competence of the prospective teacher.

Which of the following objectives has a consequence-based criterion?

____ Given a math game the prospective teacher explains the rules and describes game strategies to six pupils, five of whom can then play the game independently. (go to 7C)
____ Following a video-taped demonstration of a guided discovery math lesson, the prospective teacher identifies the strategy employed by the demonstrating teacher. (go to 5A)
____ Given a ten minute video-taped lesson, the prospective teacher codes interaction present in the lesson and interprets his code with 90% accuracy. (go to 7A)



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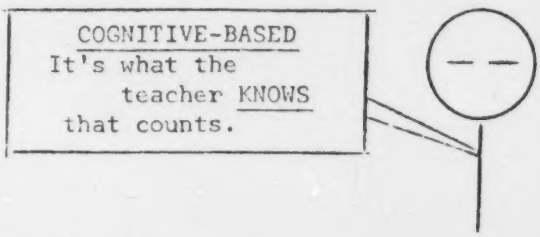
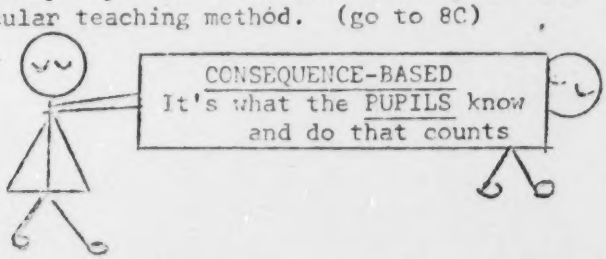
4A. Consequence-based objectives are assessed on the basis of a prospective teacher's ability to bring about change in others, not on his ability to write reports. The criterion in the objective in 1A is cognitive-based. Go to 3A.



4B. The criterion you selected required a prospective teacher to demonstrate teaching behavior by employing an inquiry strategy, whereas a cognitive-based objective assesses cognitive knowledge and understanding. Return to 3A and select another criterion.

4C. Sorry, the criterion you selected was cognitive-based. Consequence-based criteria assess a prospective teacher's ability to bring about change in others. In order to assess this ability we would

____ Test the knowledge of the prospective teacher. (go to 6C)
____ Test the pupils taught by the prospective teacher. (go to 3C)
____ Assess the prospective teacher's ability to demonstrate a particular teaching method. (go to 8C)



5A. The objective you have chosen has a cognitive-based criterion. Objectives with consequence-based criteria assess a prospective teacher's competence by examining the achievement of his pupils. Return to 3C and select another alternative.

5B. Oops! Consequence-based objectives assess the ability to bring about change in others. Performance-based objectives are focused on demonstration of teaching behaviors. Return to 2A and select another alternative.

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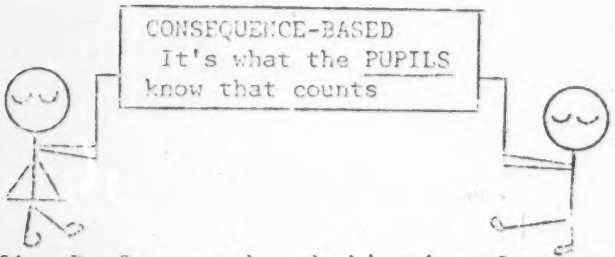
5C. You're getting the message! In teacher education performance-based objectives focus on the prospective teacher's ability to perform appropriate teaching behaviors. Consequence-based objectives assess a prospective teacher's ability to bring about change in others. Assessment is based on the achievement of pupils taught by the prospective teacher. A consequence-based objective may be stated in the following manner. The prospective teacher plans and presents a lesson on the operation of the tape recorder which results in 50% of the pupils independently operating the tape recorder.

Select the appropriate consequence-based criterion for the following objective.

Given a series of math equations, the prospective teacher,

____ Reduces each equation to its simplest form. (go to 4C)
____ Explains to peers, in a micro-teaching situation, the process involved in reducing equations to a simpler form. (go to 8A)
____ Develops a module which enables 50% of the pupils using the module to reduce the equations to their simplest form. (go to 3C)



6A. Performance-based objectives focus on the ability to demonstrate or use prescribed teaching behaviors. Performance-based criteria are used to assess a prospective teacher's ability to do the kind of things a teacher has to do. These include a wide range of teaching behaviors such as writing lesson plans, selecting and using a variety of methods, strategies and media, arranging the learning environment, diagnosing learning needs, prescribing for students, interviewing parents, keeping records and case histories, etc.
In teacher education we use this type of objective to provide opportunities for prospective teachers to practice and refine the behaviors needed for teaching.

Select a performance-based criterion for the following objective.

Given a social science concept, the prospective teacher

____ Describes its relationship to another concept in generalization form. (go to 1C)
____ Selects and demonstrates an appropriate strategy when teaching the concept to 4th grade pupils. (go to 5C)
____ Employs an appropriate strategy in teaching the concept, after which 30% of his pupils write an acceptable definition of the concept. (go to 2C)

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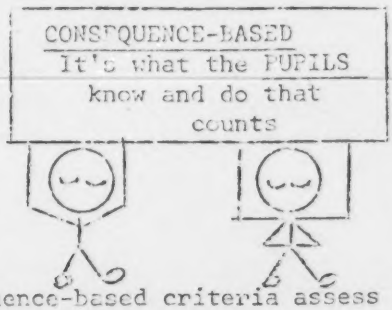
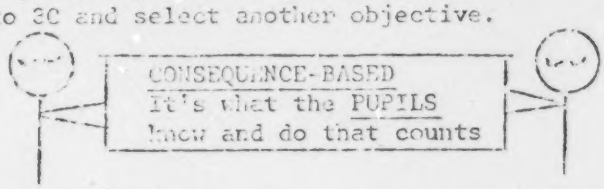
5B. Sorry, you goofed! The criterion you selected calls for the prospective teacher to be assessed on the basis of his pupil's performance. Return to 3A and select another criterion.

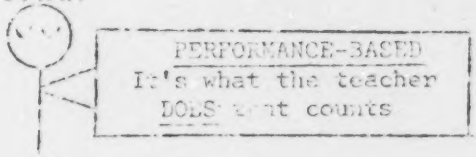
5C. Cognitive-based criteria are used to assess knowledge, understanding, and intellectual abilities and skills of a prospective teacher. Return to 5C and select another alternative.



7A. Objectives with consequence-based criteria assess a prospective teacher's competence by testing the performance of his pupils. The objective you chose is not a consequence-based objective. Return to 3C and select another objective.



7B. Intellectual knowledge and abilities form the data base upon which performances emerge, but cognitive-based criteria are used to assess intellectual knowledge and abilities. Return to 2A and make another selection.



7C. Right! The objective you chose has a consequence-based criterion.

Affective, psychomotor and human relations behaviors are also present in each of the defined categories. Developing cognitive knowledge about attitudes and values, as well as developing awareness of others feelings, attitudes, and values can be assessed by using cognitive-based criteria. An example of this type of objective may be:

> During an awareness seminar, the prospective teacher identifies one attitude toward teaching that is revealed by another student.

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An example of a performance-based objective which incorporates intellectual, human relations, and affective skills may be:

> The prospective teacher selects and employs an appropriate interview technique during an interview with a child.

A prospective teacher should become adept in relating to others, receiving feedback, and altering techniques after considering feedback. Performance-based objectives are written to give the prospective teacher an opportunity to practice and refine the skills necessary for this type of teaching behavior.

Objectives using a consequence-based criterion call for the prospective teacher to display intellectual, affective, human relations and psychomotor skills of a high quality, and to interface these skills to facilitate behavior modification in his pupils. Motivation and attitude change are two areas where the prospective teacher might demonstrate his ability to incorporate and use all four skills.

An example of a consequence-based objective of this type may be.

> The prospective teacher plans and teaches a unit on dental health which results in 40% of his pupils' demonstrating a positive attitude about the care of the teeth by voluntarily brushing their teeth after lunch.

Some experiences may have value for prospective teachers even though specific outcomes from the experience may not be identified in advance. Participating in the event elicits varied responses from each person, because of his unique value orientation, background, purposes, and needs. Such objectives, which specify events to be engaged in rather than outcomes to be attained (as in cognitive, performance, and consequence objectives) are referred to as exploratory objectives.

An example of an exploratory objective is:

> The prospective teacher selects a story and reads it to a group of culturally deprived children.

Or:

> The prospective teacher lives one week with a family who resides in a ghetto area.

Select the objective below that can be classified as an exploratory objective.

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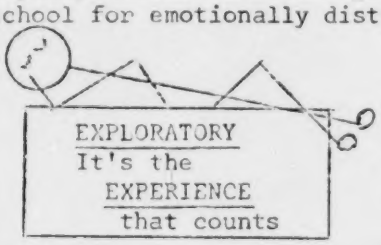
____ Given descriptions and examples of each type of criteria-based objective, classify objectives according to types with 90% accuracy. (go to 3B)

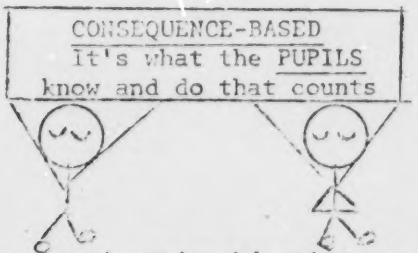
____ During a library reading period, the prospective teacher helps a child select a book for enjoyment. (go to 8B)

____ The prospective teacher presents a lesson designed to increase pupils' appreciation of Bach's music after which the pupils voluntarily listen to a selection by Bach. (go to 1B)

____ The prospective teacher serves as a teacher aide in a school for emotionally disturbed children. (go to 9A)



8A. Consequence-based criteria are used to assess the ability to bring about change in others, not the ability to do the things that can be done to bring about the change. The criterion you selected is performance-based as it is focused on a teaching behavior rather than the result of that behavior. Return to 5C and select another alternative.



8B. You're close! This objective may appear to be an exploratory objective at first glance. However, the objective calls for the prospective teacher to employ intellectual and human relations skills in performing a particular function--helping a child select a book to read for enjoyment. This objective has a specific outcome, whereas exploratory objectives specify events to be experienced rather than specific outcomes. Return to 7C and select another alternative.

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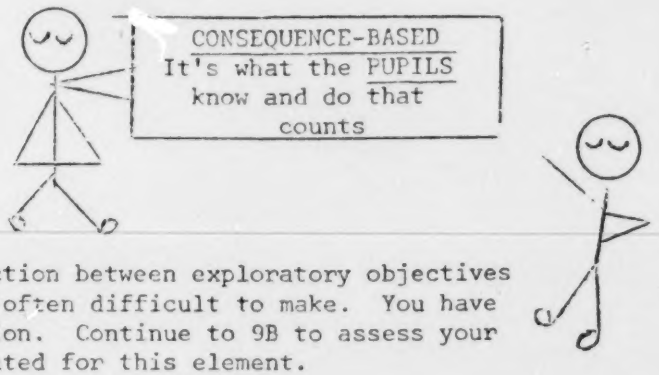
8C. Performance-based criteria assess the ability to perform teaching acts. Return to 5C and select another criterion.



9A. Very good! The distinction between exploratory objectives and other types of objectives is often difficult to make. You have succeded in making this distinction. Continue to 9B to assess your achievement of the objectives stated for this element.

9B. Using the following classification system

I Cognitive-based Objectives
II Performance-based Objectives
III Consequence-based Objectives
IV Exploratory Objectives

classify the given objectives according to types by writing the appropriate symbol(s) in the blank preceding each objective.

1. _____ After viewing the movie "Summer Children" the student writes a two-page description of strategies employed in the experimental school.
2. _____ In a micro-teaching situation, the prospective teacher correctly utilizes all procedures in the Schulman Inquiry technique.
3. _____ Following a lecture on the preparation of lesson plans, the prospective teacher evaluates (according to given criteria) a plan prepared by another student.
4. _____ Given a group of kindergarten children, the prospective teacher designs and presents a lesson that results in 50% of the children correctly identifying five basic colors.
5. _____ Before teaching a lesson that calls for small group discussion, the prospective teacher arranges classroom seating in a manner that his instructor and three peers agree would best permit the desired group interaction.
6. _____ In a high school science class, the prospective teacher arranges a dissonant situation that results in at least two pupils requesting an explanation for its occurence.

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7. _____After planning for the teaching of a given geography concept, the prospective teacher prepares visual aid materials to accompany the lesson that are colorful, clearly visible, and consistant with the total presentation.
8. _____The prospective teacher sits in on a parent-teacher conference.
9. _____The prospective teacher teaches a lesson on "Good Manners" in the Lunchroom," after which pupil behavior in the lunchroom is observed to assess the effectiveness of the lesson.
10. _____After working with pupils in a tutorial situation, the prospective teacher selects and employs diagnostic techniques in order to diagnose reading difficulties of the tutored pupils.

Go to page 11 to check your responses.

9C. We classified the objectives in the following manner:

1. I
2. II
3. I
4. III
5. II
6. III
7. II
8. IV
9. III
10. II

DESIGN FLOW CHARTS
(EE 001.03.9.3)

from

TTL-001.03 (USC)

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ENABLING ELEMENT .001.03.9.3

Design Flow Charts

Prospectus

The objective for this Enabling Element is:

The Participant constructs simplified flow charts to communicate or design instructional operations.

Flow charting is a meaningful way to describe the process and alternative options which students follow in completing a module. Instructions can be classified, not only for students, but also for the curriculum developer. Tracing the instructional alternatives and decision points through a module often highlights needed improvements. Thus, while flow charts are not required to implement a modular approach, they do provide a useful tool.

* From W. Robert Houston, et al. Developing Learning Modules. Houston, Texas: University of Houston. 1971.

Flow Chart--Example I

OBJECTIVE:

Explain the relationship between patterns of urbanization-suburbanization and selected education problems, such as the so-called dropout rate, racism in school, and so-called crossing over for teachers.

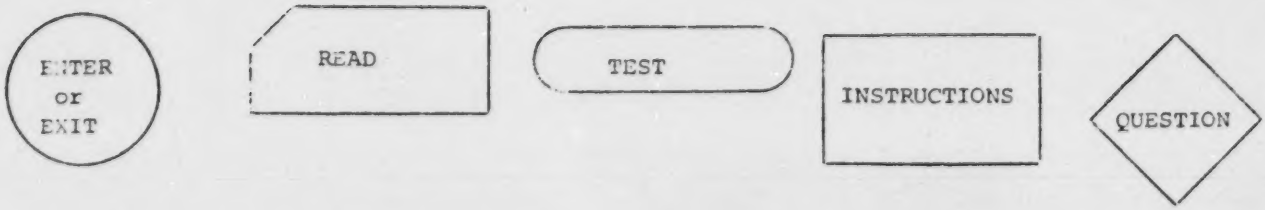
INSTRUCTIONAL PATHWAY

A. See video-tape #1, Cities--Part I;

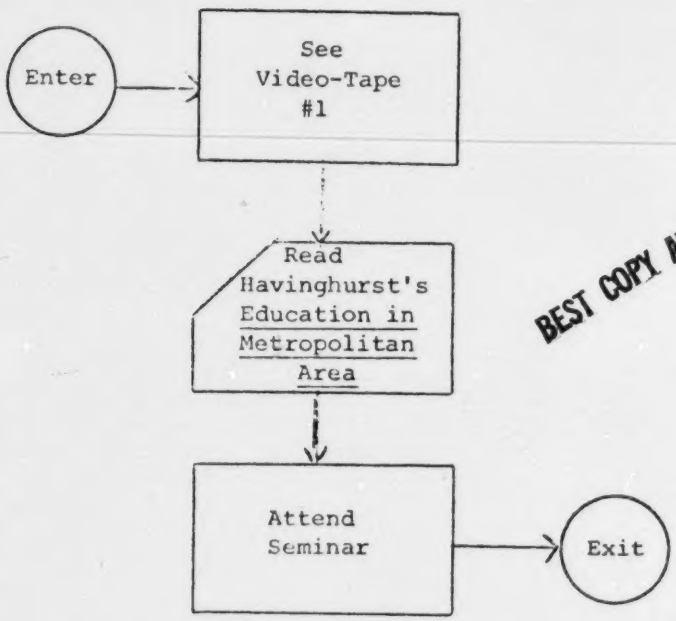
B. Read Havinghurst's Education in Metropolitan Area;

C. Attend a seminar where the students discuss the problems noted in the objective.

Use the symbols at the bottom of the page and construct a simple flow chart on another sheet of paper to show this set of operations. When you have completed the flow chart, turn to page 3 to check your responses.



Suggested Sequence for Example I



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Flow Chart--Example II

OBJECTIVE:

Explain the relationship between patterns of urbanization-suburbanization and selected education problems, such as the so-called dropout rate, racism in school, and so-called crossing over for teachers.

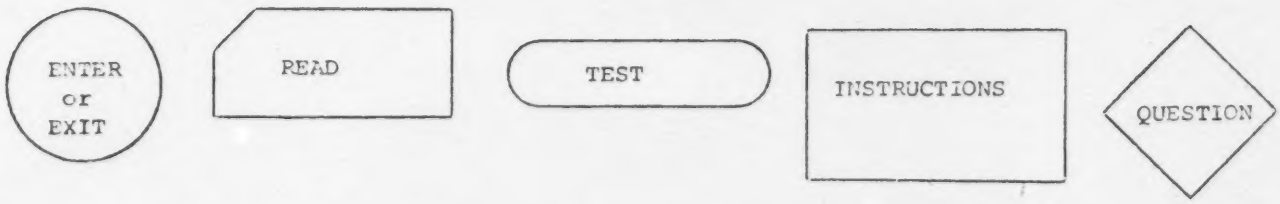
INSTRUCTIONAL PATHWAY

A. Listen to slide-tape 42 which has a series of questions at the end of the tape;

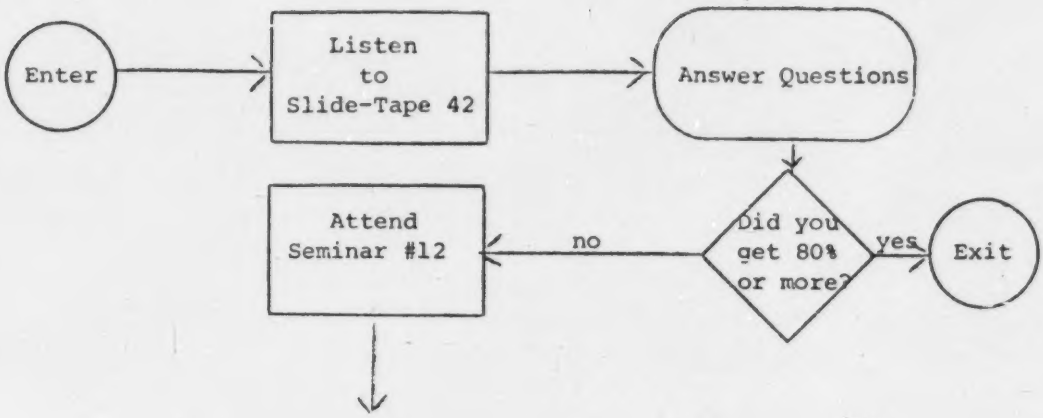
B. If the student scores 80% or more, he exits the module;

C. If the student scores less than 80% he attends seminar #12 and goes to the next operation.

Use the symbols at the bottom of the page and construct a simple flow chart on another sheet of paper to show the set of operations. When you have completed the flow chart, turn to page 5 to check your responses.



Suggested Sequence for Example II



Flow Chart--Example III

OBJECTIVE:

Given a description of each of 3 different children, state whether physical, social, or intrinsic reinforcement would be most likely to be effective for each child, and decide the manner and timing for using each.

INSTRUCTIONAL PATHWAYS

A. Take module pre-assessment;

B. If a score of 10 or more, the student goes to Seminar B-2;

C. If a score of less than 10, the student has his option of

1. Seeing video-tape presentation B-4,

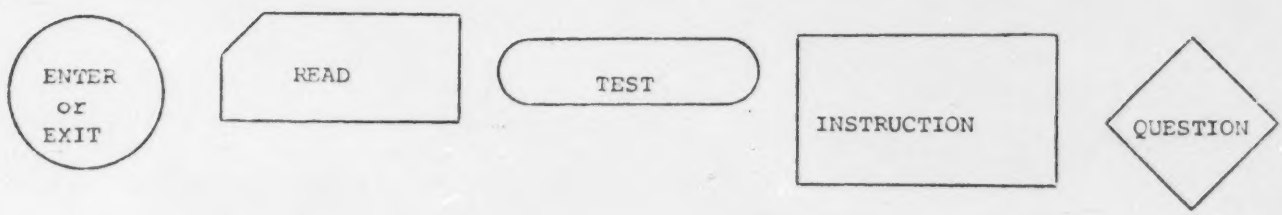
2. Seeing slide-tape presentation B-3,

3. Doing his own thing;

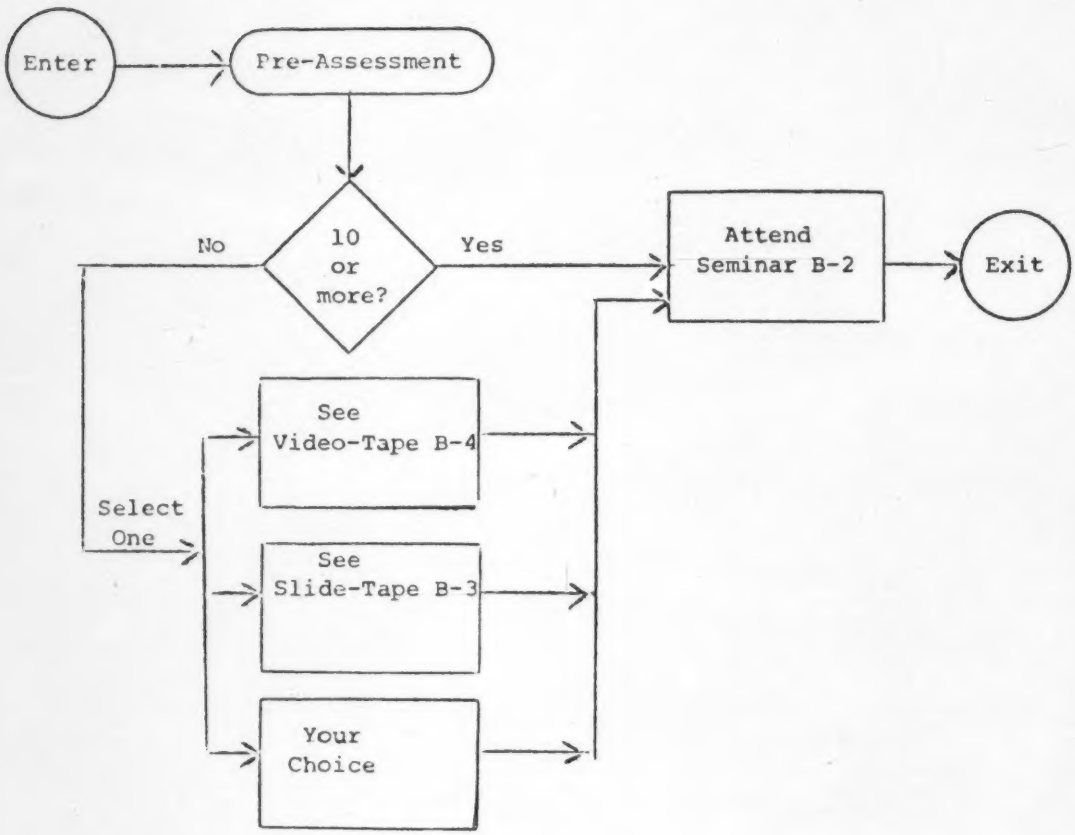
After C the student goes to D;

D. Go to Seminar B-2.

Use the symbols at the bottom of the page and construct a simple flow chart on another sheet of paper to show this set of operations. When you have completed the flow chart, turn to page 7 to check your responses.



Suggested Sequence for Example III



Flow Chart--Example IV

An instructional specialist, in designing a way for a student to get into a module, specifies these operations.

INSTRUCTIONAL PATHWAY

A. Enter the module and then read module prospectus;

B. Decide whether he wants to take pre-assessment;

C. If so, he takes pre-assessment, then goes to Step E;

D. If not, he goes directly to Step E;

E. The student is to have a conference with his advisor where he identifies the parts of the module to be completed.

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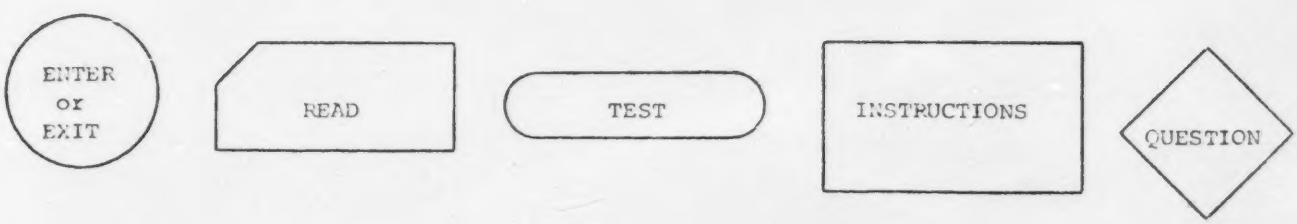
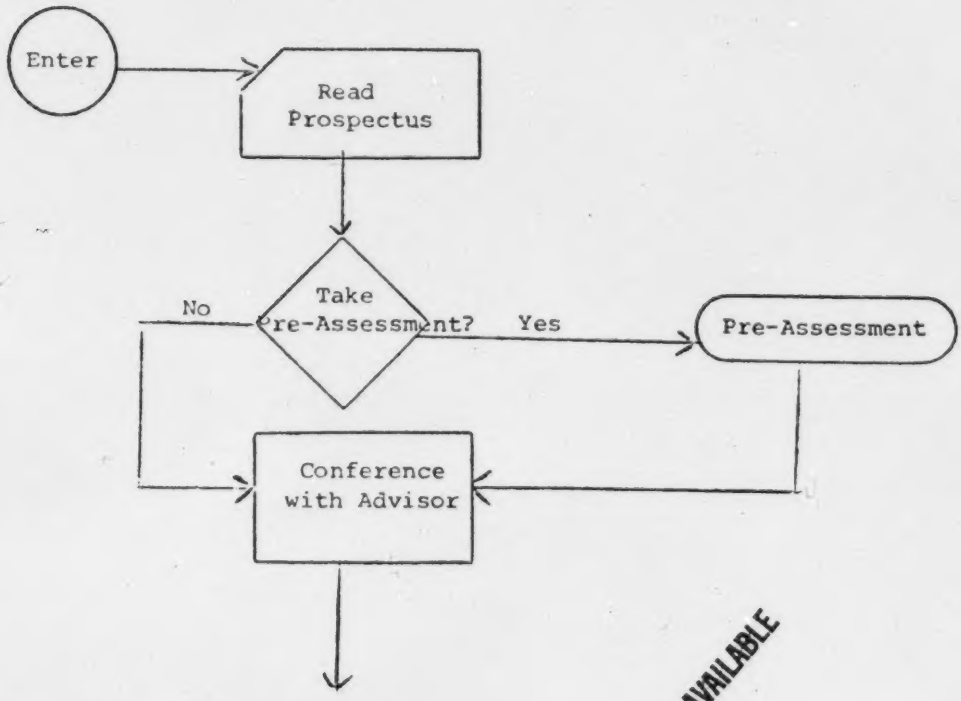
Use the symbols at the bottom of the page and construct a simple flow chart on another sheet of paper to show this set of operations. When you have completed the flow chart, turn to page 9 to check your responses.



Suggested Sequence for Example IV



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Flow Chart--Example V

OBJECTIVE:

The student constructs and teaches a science lesson to an elementary class.

INSTRUCTIONAL PATHWAY

A. Enter, read the module prospectus, and then decide whether he wants to continue (if not, he exits);

B. Read pp. 80-87 in Gega's text Science in Elementary Education;

C. Prepare a lesson on any science principle appropriate for a fifth grade class;

D. Submit the lesson to the instructor for approval;

E. If plan is approved, the student is to teach a fifth grade class at a time and place set by instructor;

F. If the plan is not approved, the student is to revise plan based on instructor's ideas and then teach the class.

Use the symbols at the bottom of the page and construct a simple flow chart on another sheet of paper to show this set of operations. When you have completed the flow chart, turn to page 11 to check your responses.

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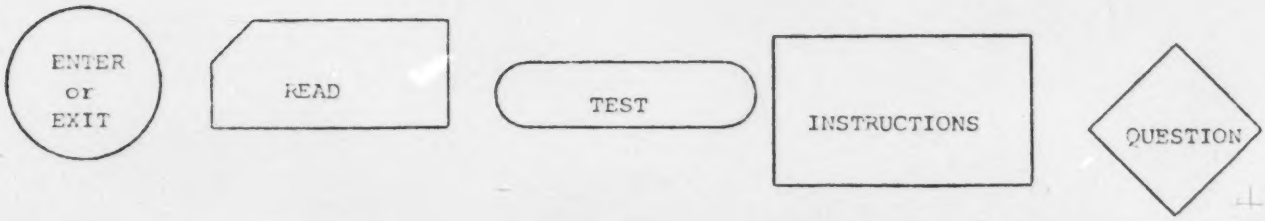
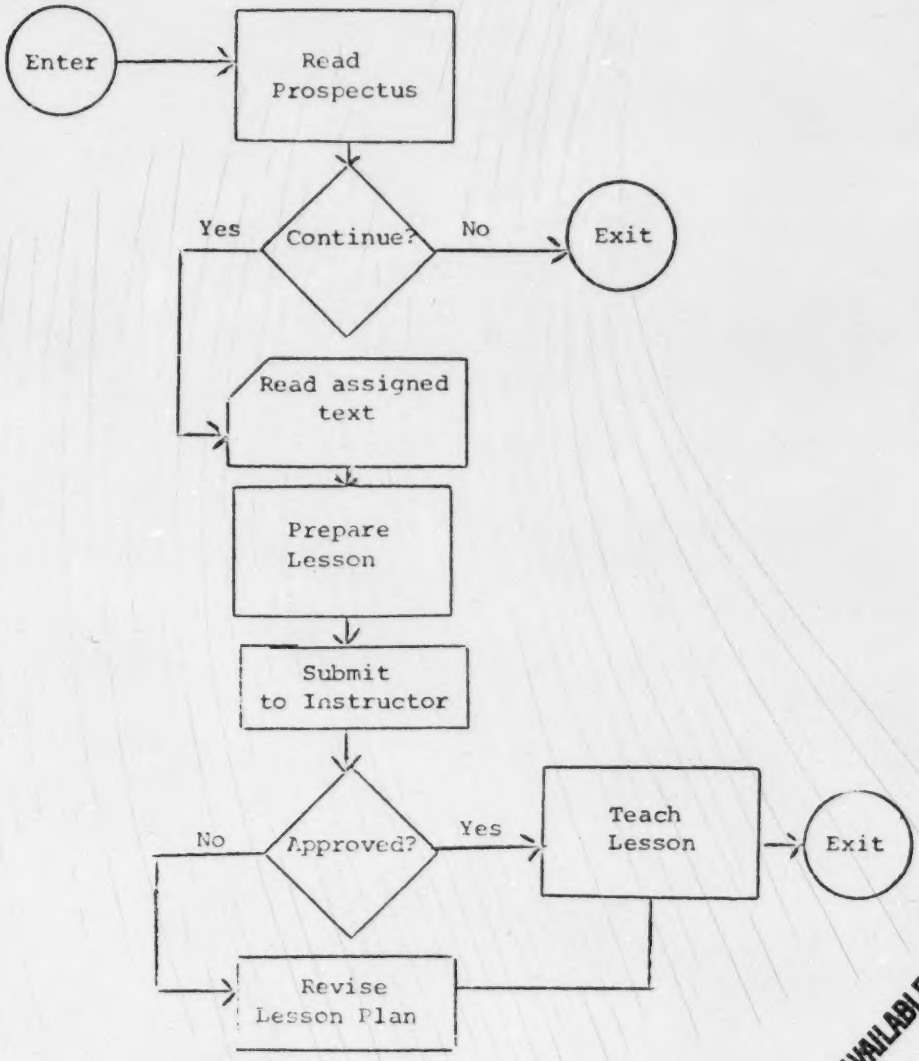


Suggested Sequence for Example V



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Flow Chart--Example VI

OBJECTIVE:

The student distinquishes between educational goals and instructional objectives.

INSTRUCTIONAL PATHWAY:

A. View PPIT #1 or view Edicational Objectives, by Vimcet:

B. Take Quiz A, supplied by the instructor;

C. If 10 or more correct, exit module;

D. If less than 10 correct, read Mager's "Preparing Educational Objectives";

E. Take Quiz B, supplied by instructor;

F. If 10 or more correct, exit module;

G. If less than 10 correct, see instructor.

Use the symbols at the bottom of the page and construct a simple flow chart on another sheet of paper to show the set of operations. When you have completed the flow chart, turn to page 13 to check your responses.

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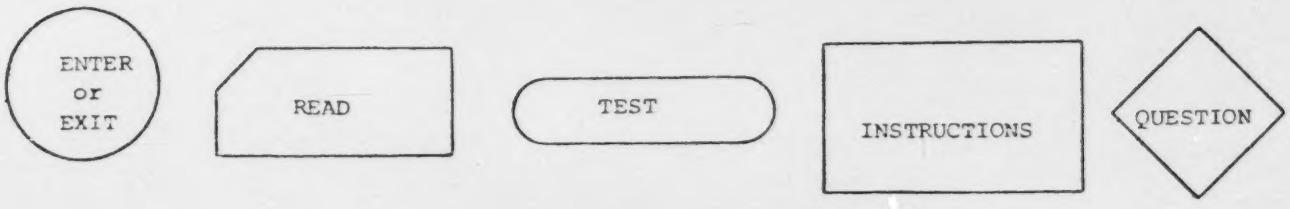
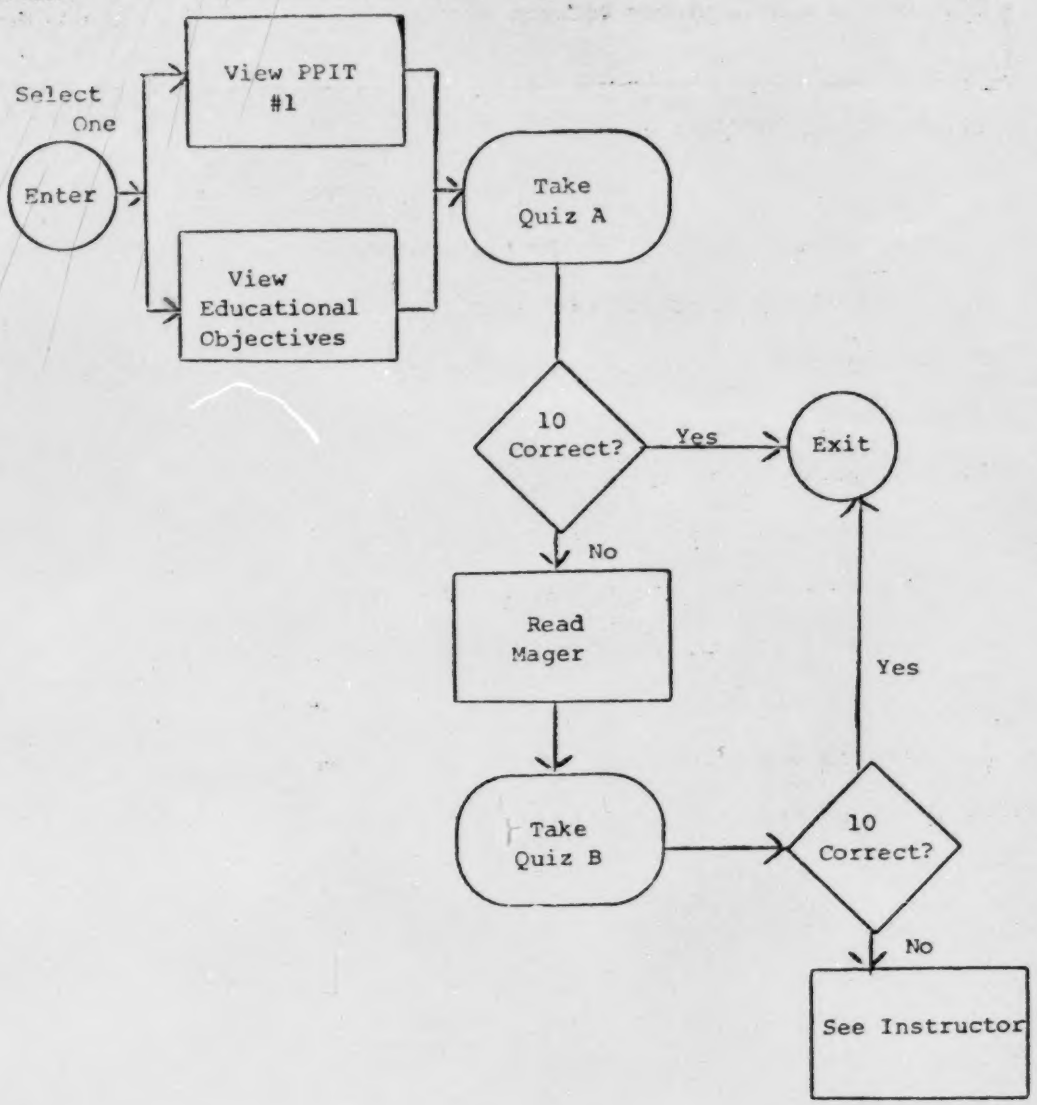


Suggested Sequence for Example VI



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Flow Chart--Example VII

OBJECTIVE:

Describe format of commonly used standardized tests.

Use the symbols below to construct a flow chart for the following operation.

INSTRUCTIONAL PATHWAYS

A. Student enters;

B. Student reads Chapter 5 in Davis' Educational Measurements and Their Interpretation;

C. Answers questions on quiz supplied by the instructor, corrects own quiz;

D. If student gets 5 or more correct he attends seminar on evaluation;

E. If he gets less than 5 correct he sees his instructor then attends seminar on evaluation.

Turn to page 15 to check the flow chart which you have made on another sheet of paper to show the set of operations.

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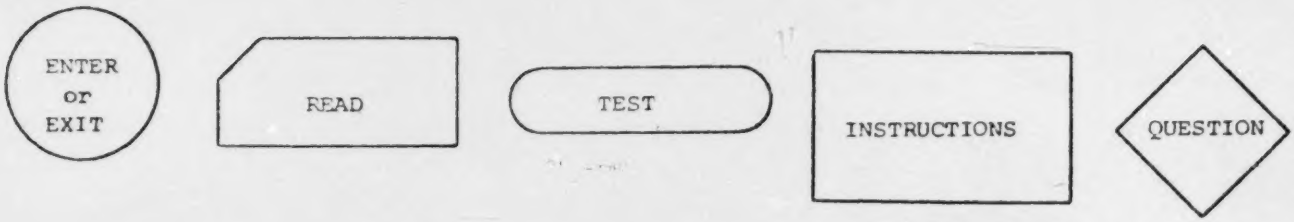
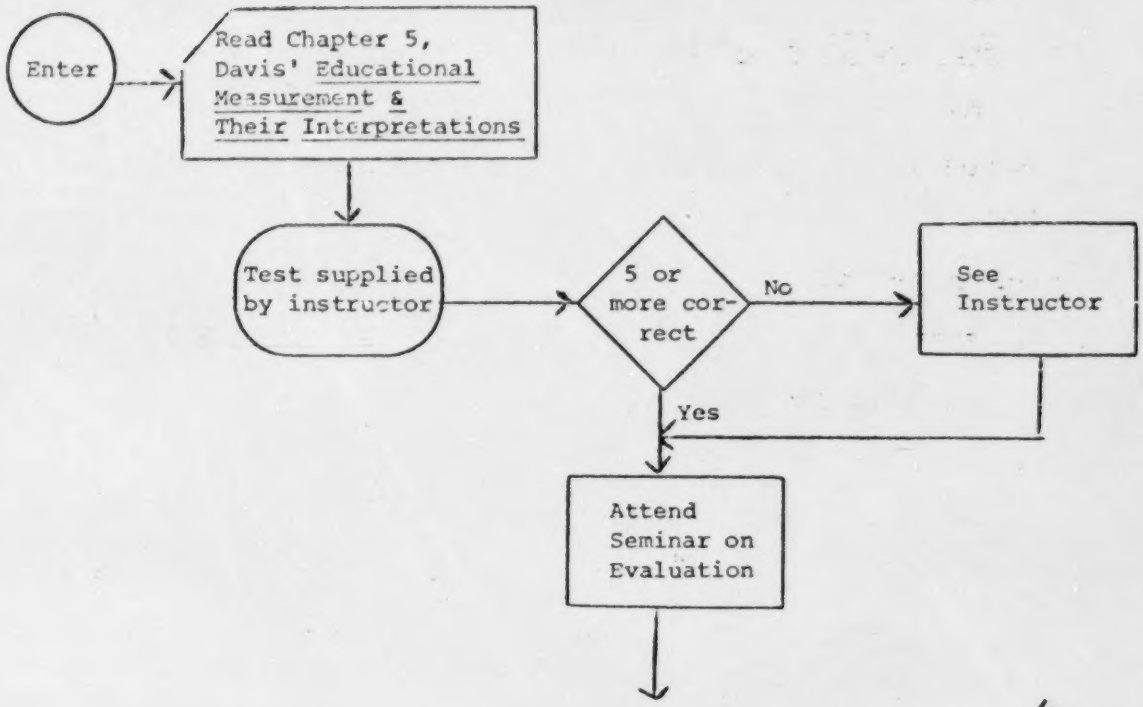


Suggested Sequence for Example VII



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DEVELOP ASSESSMENT PROCEDURES
(EE 001.3.9.4)

from

TTL-001.03 (USC)

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Teacher Corps: Rural Migrant

Phillips Hall of Education S-1002
University of Southern California
Los Angeles, California 90007

ENABLING ELEMENT 001.03.9.4

Develop Assessment Procedures*

The objectives for the Assessment Enabling Element are:

1. The participant defines criteria-reference assessment.
2. Given a cognitive and performance objective and assessment items, the participant distinguishes between appropriate and inappropriate assessment items.
3. Given exploratory and consequence objectives, the participant constucts brief assessment items.

Assessment procedures are vital in criterial-referenced teacher education programs; they provide feedback to students to determine whether or not they have met the stated program objectives. They also provide information to instructors and curriculum developers concerning the viability of activities in bringing about student change.

Pre-assessment measures students' competence with respect to (1) module prerequisites and (2) enabling objectives of the module which lead to the terminal objective.

This Enabling Element is designed to aid participants to employ more effective assessment instuments.

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* From W. Robert Houston, et al. Developing Learning Modules Houston, Texas: University of Houston. 1971.

Step One: Reconsider the initial experience of flying a kite. What criteria were used to determine your degree of success in undertaking that experience? (How did you evaluate yourself?) List them below.

Step Two: Describe the structure of the evaluation of any other enabling elements of this component which you have undertaken. If you have not undertaken any other elements, how would you suggest your performance in this element be evaluated?

Step Three: By making use of your ideas in Steps One and Two, describe how the intern's degree of success is determined in Performance Based Teacher Education.

Such assessment is called "criteria-reference assessment." To be sure you mean the same thing we do by this term, turn to page 3 for our definition.

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The definition of criteria-referenced assessment could include any of the following:

A. Assessments designed to measure the objectives taught.

B. Assessments in which an individual's score is interpreted in relationship to a fixed criterion, not the scores of other individuals.

C. Assessments designed to measure accurately whether or not each student has attained stated objectives.

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In front of the assessment item numeral, list the letter of the objective the assessment item measures. If the item provided does not measure any of the objectives, leave the space blank.

OBJECTIVE	ASSESSMENT ITEM
A. Select appropriate math equipment	_____1. Identify the names Flanders', Amidon, and Hough
B. Code interaction analysis lesson	_____2. Design a test to measure math achievement
C. Construct a test to measure pupil math achievement	_____3. Use sheet below to code the lesson on Tape A using Flanders' system
D. Identify proper questioning technique	_____4. Construct math equipment for remedial instruction
E. Use questioning techniques with peers	_____5. Teach a lesson to peers in which you use questioning technique
	_____6. Given the interaction analysis data below, tell what strategy the teacher used
	_____7. Which of the following materials are appropriate for a third grade mathematics lesson on the commutative property. (Materials then listed.)
	_____8. Use the tape provided to find proper questioning techniques

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We think the assessment items measured the objectives as follows:

_____ 1

D 2

B 3

A 4

E 5

_____ 6

_____ 7

D 8

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Assessment Worktext

Read the objective below and briefly tell how you would assess student performance of the objective.

_____1. Observe a class of mentally retarded children.

_____2. Constuct and teach a lesson to an eighth grade class in which a psychomotor skill is learned by at least 30% of the pupils.

_____3. While teaching one small reading group, demonstrate management skills by organizing the activities of the entire class so that they are constructively occupied.

_____4. Without using ridicule, teach at least three pre-school children to tie their shoes.

_____5. Visit at least four parents of your students in their homes.

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SPECIFY ENABLING ACTIVITIES
(EE 001.03.9.5)

from

TTL-001.03 (USC)

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Teacher Corps: Rural-Migrant

Phillips Hall of Education S-1002
University of Southern California
Los Angeles, California 90007

ENABLING ELEMENT 001.03.9.5

Specify Enabling Activities*

Prospectus

The objective for this enabling element is:

Given an objective of each type (Cognitive, Performance, Consequence, and Exploratory), state the purpose of the enabling activity for each objective, list alternate and equivalent enabling activities for each, and name the environment of the activity with a minimum of three errors.

Enabling activities contribute to the learner being able to teach an objective. The activities must be appropriate for the objective. While not replicating the post assessment activity, they should be near or at the same level of difficulty.

The learner is given a choice of activities. This permits him to select a mode and medium most suited to his own style of learning. You, as a learner in this situation, could be provided two alternate and equivalent activities which would contribute to your being able to complete the objectives. For example, a slide-tape presentation could be provided as an alternative to printed material. A third option, "Participant Option", is also available. This option should be provided in all modules to permit individualization and provide for unique participant procedures for achieving the objectives. In a fourth option, you may go directly to the post assessment activity. This option, too, is characteristic of modules. Your options are shown graphically on the flow chart for this element of page 2. You may now exercise your options.

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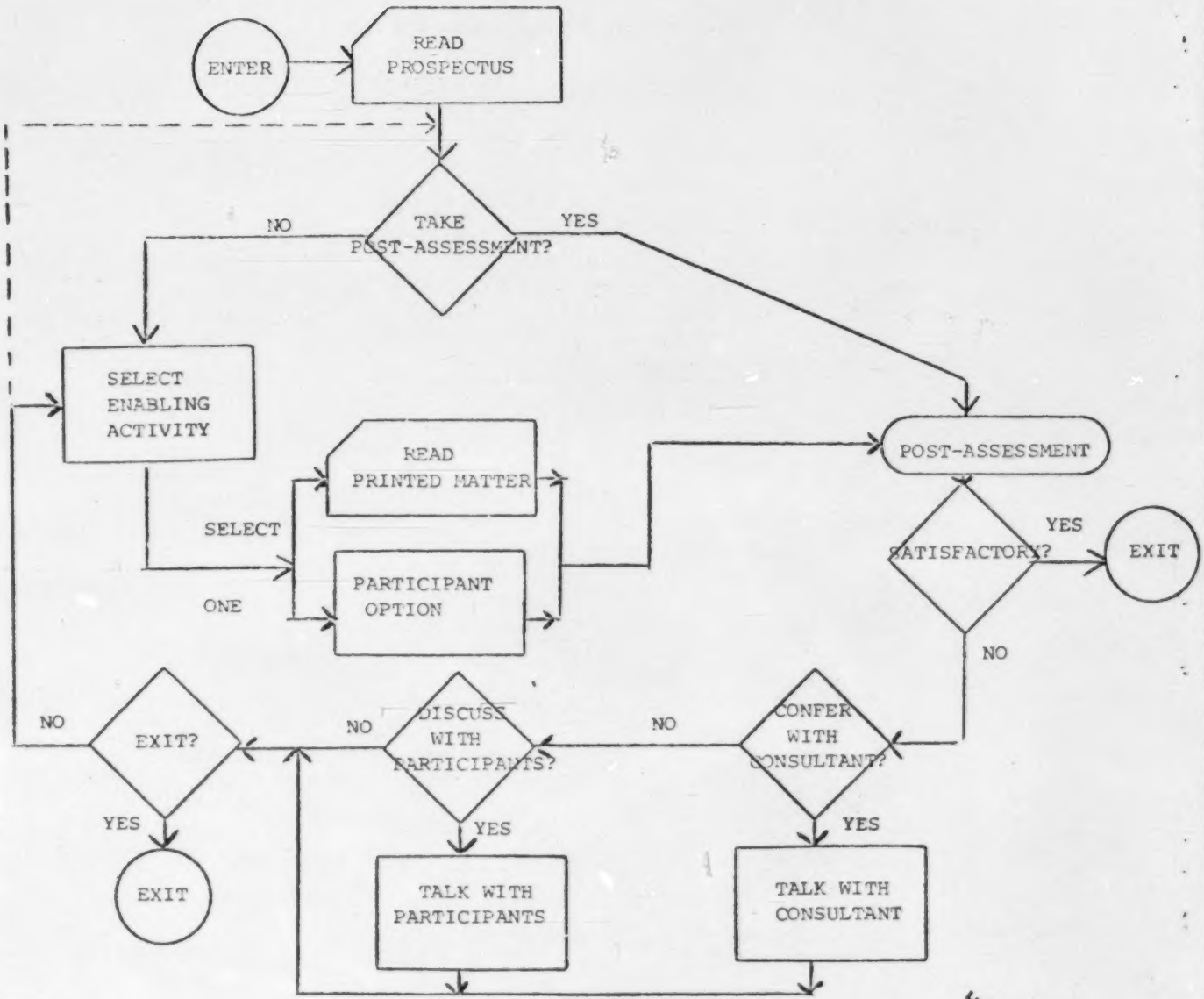
* From W. Robert Houston, et al. Developing Learning Modules. Houston, Texas: University of Houston. 1971.



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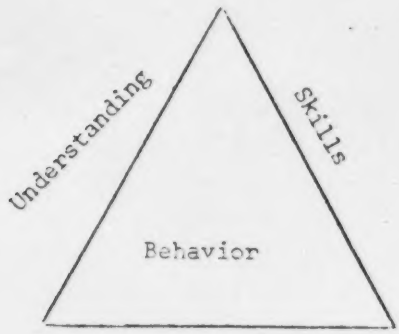
Enabling Activities

An enabling activity is a learning experience that contributes to the learner's successfully completing the assessment activity for an objective. The enabling activity should provide the learner with the additional knowledge, understanding, skill, and behavior needed in the assessment activity.



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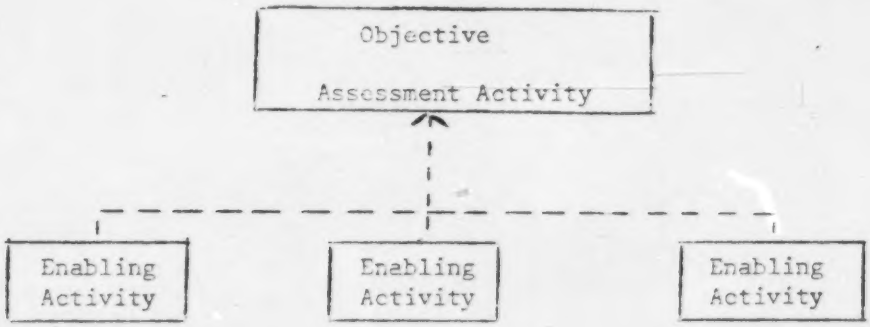
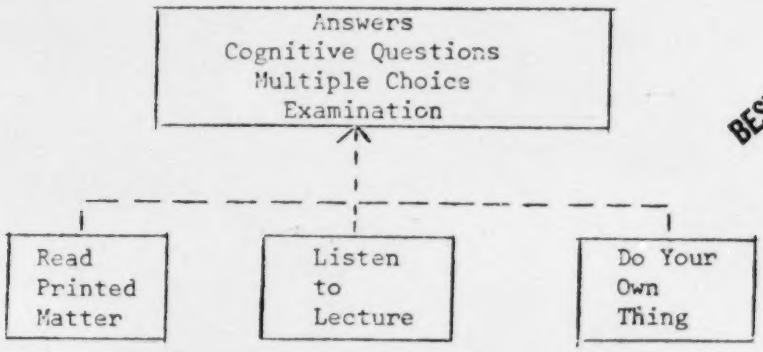
Knowledge

Enabling activities are directly related to an objective. They are not the same activity as the assessment activity. However, the learner should feel he can do the assessment activity after completing the enabling activity.



Each objective should have at least two alternate and equivalent enabling activities. This provides the learner with an opportunity to select the activity that best meets his needs and learning style. Providing this type of choice is one of the ways to personalize the program.



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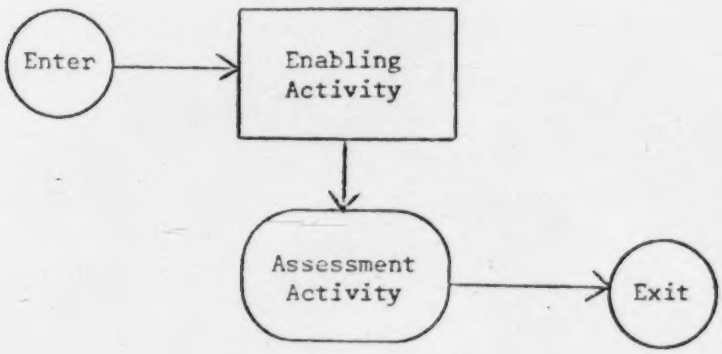
Each enabling activity should be followed by an opportunity for the learner to engage in assessment activity.

There is not a series of enabling activities leading to the objective. This procedure provides the learner with immediate feedback, another important feature of good learning programs.



The type of objective will determine the purpose for the enabling activity. The chart below shows the relationship of the objective to the purpose.

TYPE OF OBJECTIVE	PURPOSE FOR THE ACTIVITY
COGNITIVE	DATA INPUT
PERFORMANCE	BHAVIOR DEVELOPMENT -- REFINEMENT OR REALITY TEST
CONSEQUENCE	BEHAVIOR DEVELOPMENT -- REFINEMENT OR REALITY TEST
EXPLORATORY	MOTIVATION OR REALITY TEST

The following objective is a performance type of objective:

> Given a group of children, teaches a mathematical concept using an inductive teaching strategy.

It would require enabling activities that focused on behavior development or refinement.

Data Input Enabling Activities

Data input enabling activities provide the cognitive base for the learner.

The learning environment for this type of activity is an Information Resource Area.

Some of the enabling activities include:

- Lecturing
- Printed material
- Audio tapes or records
- Television
- Still pictures
- Motion pictures
- Slides or film strips
- Computers

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Multi-media learning stations make it possible to use a combination of modes.

Evaluation of data input enabling activities require a consideration of:

Speed of Dissimination - How fast can the mode present the data?

Logistics - Is the learner restricted in location and/or time?

Sensory Impact - Does the learner use more than one of his data intake systems?

Accessibility - How readily available is the instructional material to the learner?

Behavior Development of Behavior Refinement Enabling Activities

The learning environment for this type of activity is a laboratory. Laboratory is a generic term used to indicate a variety of approaches.

Some of the enabling activities for Behavior Development of Bevavior Refinement include:

Seminars
Micro-teaching
Simulation
Encounter Groups
Self Awareness Experiences
Human Relations Training
Sensitivity

Some characterisitics of a laboratory setting which may be used to evaluate the activity include:

A psychologically supportive atmosphere;
A contrived segment of reality which is characteristic of the real world;
A feed-back system during the process.

Some additional considerations include:

1. Is there an opportunity to try new behavior patterns?
2. Is honest and open feed-back used?
3. Is self-awareness increased?
4. Is only a segment of the real world used?
5. Is there a focus on a specific task?
6. Is a supportive climate present?

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Reality Test Enabling Activities

The learning environment for this type of activity is the Field.

The field provides a reality test in the real world, in contrast to the partial and contrived reality of the laboratory. Some of the enabling activities include:

Observing
Being a teacher aide
Working as a tutor
Student teaching
Community activities
Internships

Some questions that may be asked when evaluating enabling activities for reality test include:

1. Was the activity representative of a class of experiences in the "real world"?
2. Were techniques learned in the laboratory used?
3. Did the activity provide for a synthesis of prior experiences?
4. Was provision made for an analysis of the activity?

Motivation Enabling Activities

The learning environment for this type of activity could be any of the preceeding types of environments:

Information Resource Areas
Laboratory
Field

Enabling activities might include many of the previously named enabling activities. Some of them include:

Community Activities	Internships
Lecturing	Seminars
Printed Materials	Micro-teaching
Audio-tapes	Simulation
Television	Encounter Groups
Still Pictures	Self-Awareness Experiences
Motion Pictures	Human Relations Training
Slides	Sensitivity Training
Observing	Tutoring
Serving as Teacher Aid	Student Teaching

Four types of objectives have been identified. They are:

Cognitive
Performance
Consequence
Exploratory

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The purpose for the activity, the type of activity used, and the environment should be compatible with and relate directly to the objective. For example, this objective:

> Given a multiple-choice test on interaction analysis systems, answers 85 out of 100 items correctly.

This objective:

Teaches a lesson to peers that reflects an indirect approach 75% of the time.

would need a behavior development activity and/or refinement activity in a laboratory environment. The activity might be viewing a film followed by a seminar session.

In the final analysis, the primary criteria for evaluating enabling activities are:

1. Were alternate enabling activities provided for each objective?
2. Was the purpose, type, and environment of the activity compatible with the objective?
3. Was the enabling activity followed by provision for an assessment activity?
4. Did the activity provide a way for the learner to accomplish his objective in the most effective, efficient, and humanistic mode possible?

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Post Assessment

Given the following objectives, state the purpose of the enabling activity, list alternate and equivalent enabling activities, and name the environment for the activity. Check your answers on page 11.

A. Given a multiple choice examinatien on interaction analysis, answers the questions with 90% accuracy.

PURPOSE	ACTIVITY	ENVIRONMENT

B. Given a peer group, teaches a lesson using a questioning technique 75% of the time.

PURPOSE	ACTIVITY	ENVIRONMENT

C. Given a group of children, teaches a lesson where 90% of the children are able to illustrate the associative property of addition.

PURPOSE	ACTIVITY	ENVIRONMENT

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D. Given a family from a different ethnic group and/or socioeconomic level than your own, spend a minimum of three clock hours visiting in the home of that family.

PURPOSE	ACTIVITY	ENVIRONMENT

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Answer Section

A.

PURPOSE	ACTIVITY	ENVIRONMENT
Data Input	Lecture Audio Tape Printed Material	Learning Resource Area

B.

PURPOSE	ACTIVITY	ENVIRONMENT
Behavior Development or Refinement	Audio Tape & Seminar Motion Picture & Seminar	Laboratory

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C.

PURPOSE	ACTIVITY	ENVIRONMENT
Reality Test	Micro teaching Tutoring	Field

D.

PURPOSE	ACTIVITY	ENVIRONMENT
Motivation or Reality Test	Encounter Group Human Relation Training	Laboratory

Should you disagree with the answers, you may want to discuss this with other participants or with the consultants.

OUTLINE MODULE AND COMPONENT FORMAT
(E E 001.03.9.6)

from

TTL-001.03 (USC)

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Los Angeles, California 90007

ENABLING ELEMENT .001.03.9.6

MODULE/COMPONENT FORMAT

Prospectus

The objectives for this Enabling Element Are:

The participant orders specified steps which communicate a sequence for module and component operations.
The participant states the relationship between components and modules.

Module and Component formats may vary according to their purpose, audience, facilities available, and need for special equipment. But regardless of the form which the module ultimately assumes as it is presented to students, certain stages or parts usually are included. The order that these steps are followed by students often is the same. Persons responsible for developing modules need to recognize the parts of modules and components, and the usual order in which students follow these parts.

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* From W. Robert Houston, et al. Developing Learning Modules. Houston Texas: University of Houston. 1971.

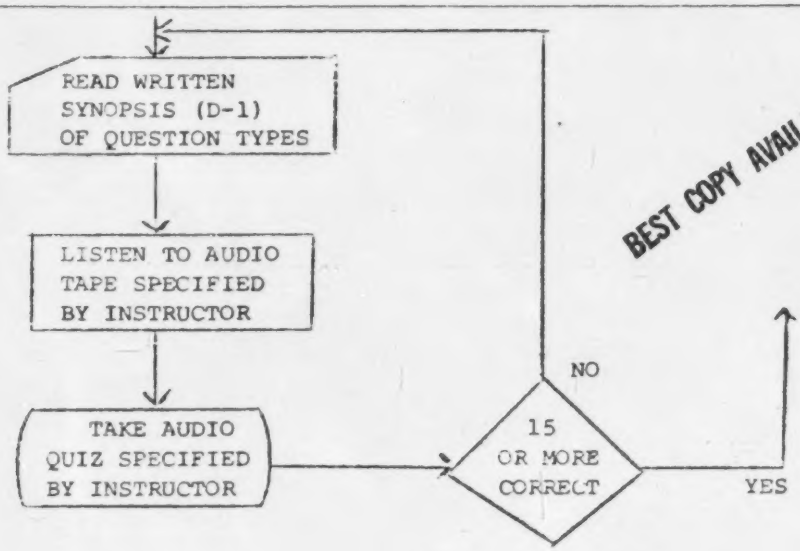
COMPONENT/MODULE FORMAT

Enabling Objective

Given a tape recording of his, or another student's microteaching, categorize the questions asked as memory, translation, interpretation, application, analysis, synthesis, or evaluation with 90% accuracy.

Enabling Activities

1. Student reads written synopsis (D-1) of question types
2. Student listens to audio-tape and categorizes specific questions on the tape
3. Student takes audio-quiz and submits to instructor
4. If the student scores 15 or more, he completes the objective
5. If not, he starts again by reading synopsis (D-1)


READ WRITTEN SYNOPSIS (D-1) OF QUESTION TYPES
LISTEN TO AUDIO TAPE SPECIFIED BY INSTRUCTOR
TAKE AUDIO QUIZ SPECIFIED BY INSTRUCTOR
15 OR MORE CORRECT
NO
YES

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Terminal Objective

In a ten-minute microteaching situation, the prospective teacher will ask students each of the following types of questions: memory, translation, interpretation, application, analysis, synthesis, and evaluation.

Terminal Activities

1. Student gets instructions from instructor and practices microteaching with another student.
2. When student thinks he is ready for microteaching he gets assignment from instructor.
3. He then microteaches at assigned place while he audio-tapes his teaching.
4. He then arranges a time for meeting with instructor, and
5. Attends meeting.
6. If his instructor is satisfied with the taped microteaching, the student completes the objective.
7. If his instructor is not satisfied the student tries another microteaching situation.

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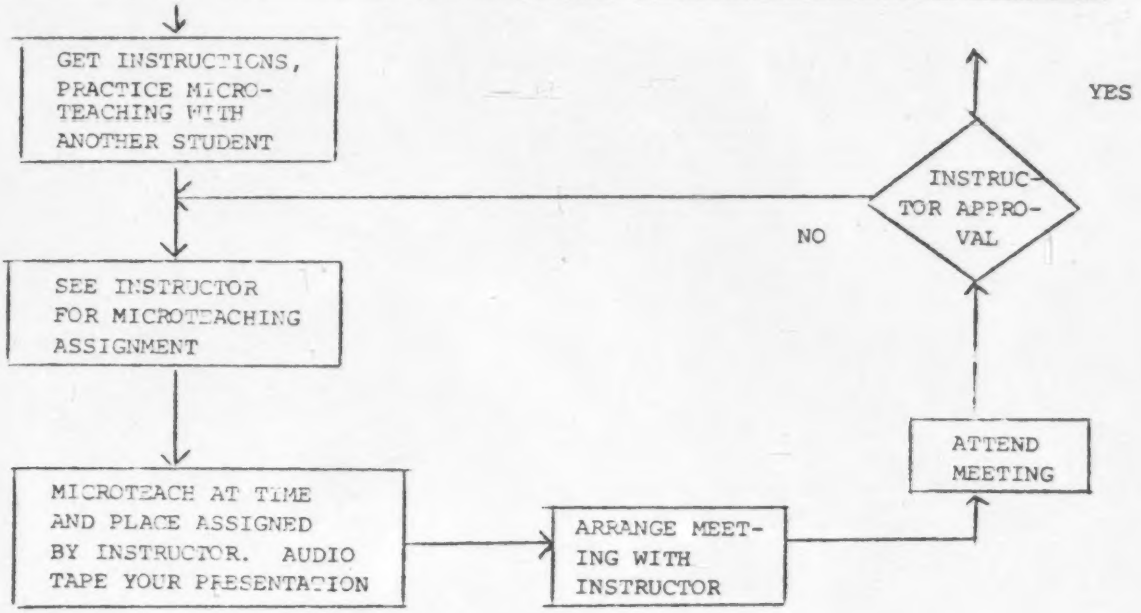
GET INSTRUCTIONS, PRACTICE MICRO-TEACHING WITH ANOTHER STUDENT
SEE INSTRUCTOR FOR MICROTEACHING ASSIGNMENT
MICROTEACH AT TIME AND PLACE ASSIGNED BY INSTRUCTOR. AUDIO TAPE YOUR PRESENTATION
ARRANGE MEET-ING WITH INSTRUCTOR
ATTEND MEETING
INSTRUC-TOR APPRO-VAL
NO
YES

COMPONENT FORMAT

Copy the flow chart from page 5 onto a sheet of paper and write the steps listed below in the correct box.

1. Student Enters Teacher Education Program
2. Select Component for Study
3. Read Prospectus

4a. Continue?

5b. Exit

5. Take Pre-assessment?
6. Pre-assessment
7. Advisor Conference
8. Pass all Objectives?
9. Select Modules to be completed
10. Select First Module
11. Complete Module

12a. All Modules Completed?

12b. Select Next Module

13. Post-assessment
14. Pass?
15. All Components Completed?
16. Exit

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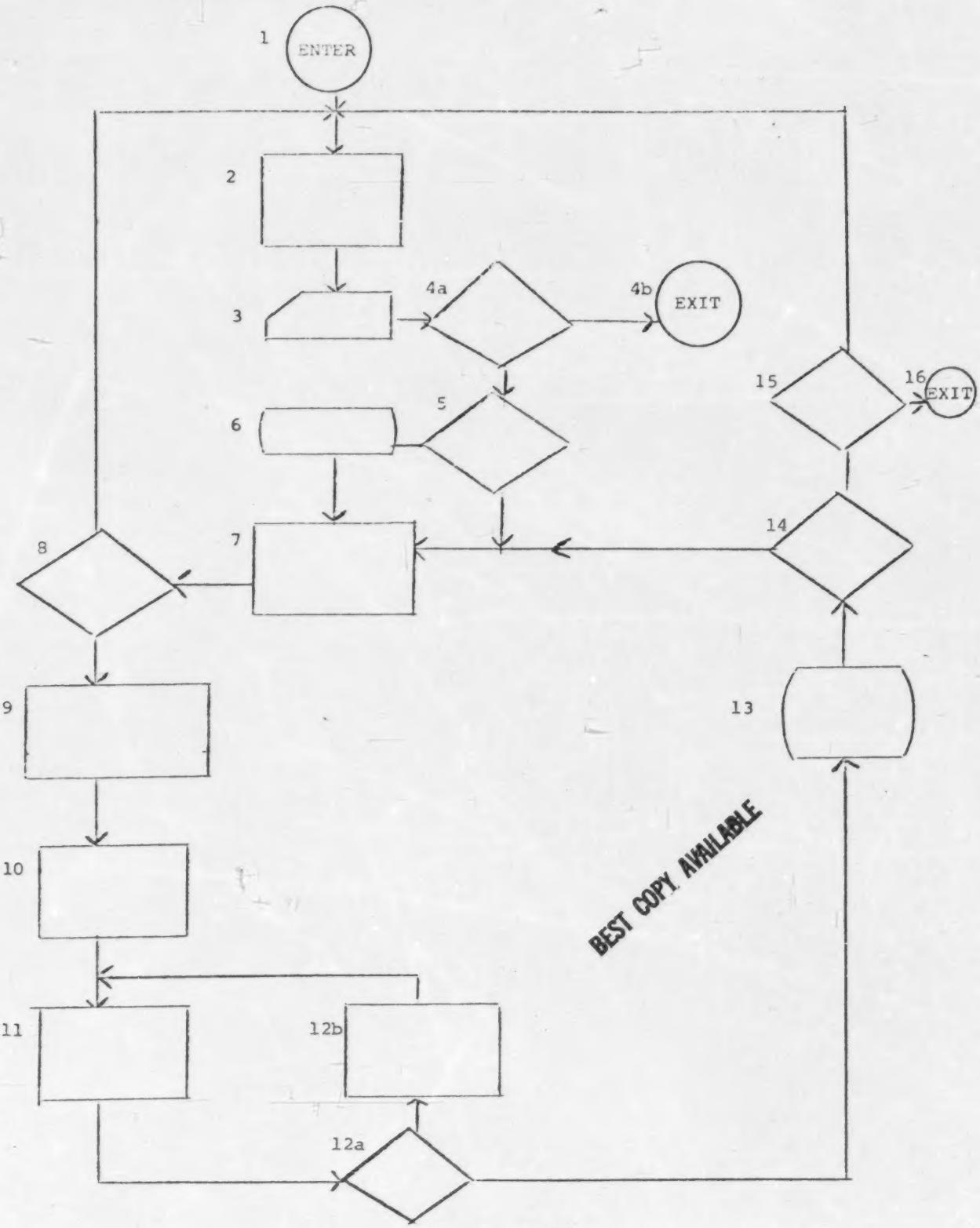
COMPONENT FORMAT



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COMPONENT FORMAT

List the scrambled nodule steps in the order indicated by the flow chart on page 7.

Scrambled Steps

1. Take Pre-assessment?
2. Read Prospectus
3. Post assessment
4. Select Next Module
5. Advisor Conference
6. Select Modules to be Completed
7. Complete Module
8. All Modules Completed?
9. Pass?
10. Enter
11. Exit
12. All Components Completed?
14. Continue?
15. Exit
16. Select First Module
17. Pre-assessment
18. Pass All Objectives?

1. Student Enters Teacher Education Program
2.
3.
4a.
4b.
5.
6.
7.
8.
9.
10.
11.
12a.
12b.
13.
14.
15.
16. Student Exits Component

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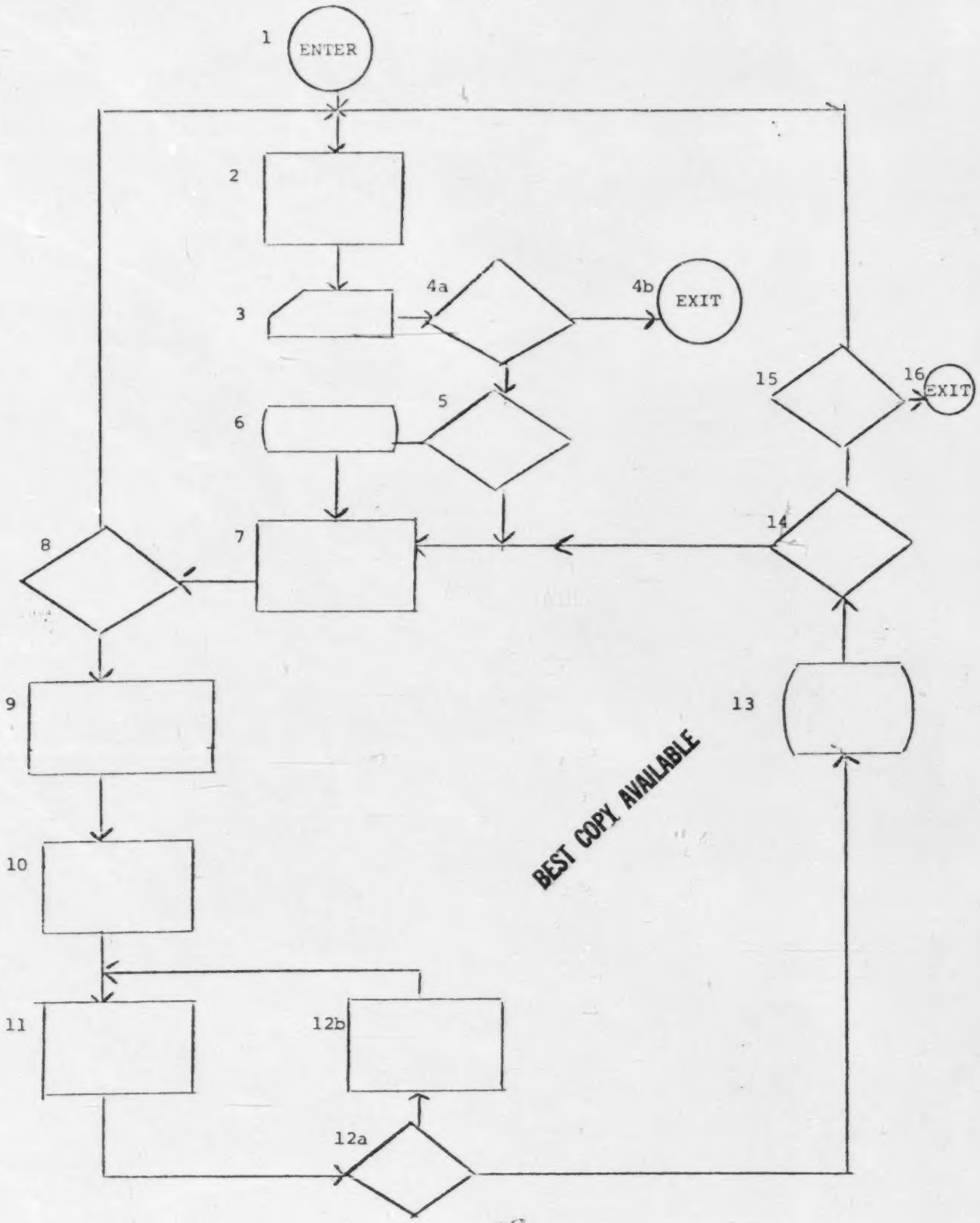
COMPONENT FORMAT



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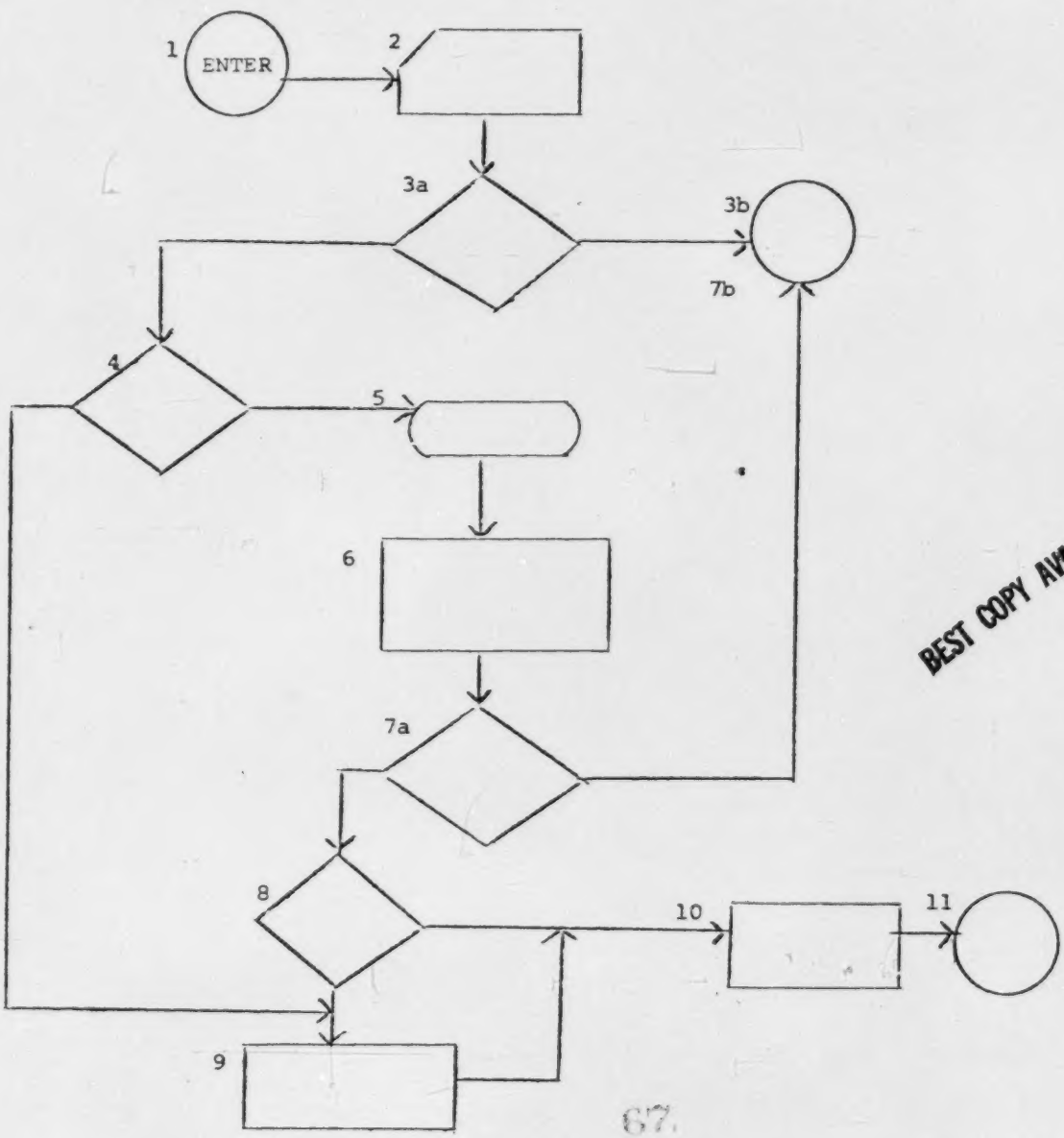
Design a module by labelling the steps in the flow chart below.

Module Format Steps

1. Student Enters
2.
3a.
3b.
4.
5.
6.
7a.
7b.
8.
9. Enabling Activities
10. Terminal Activities
11.



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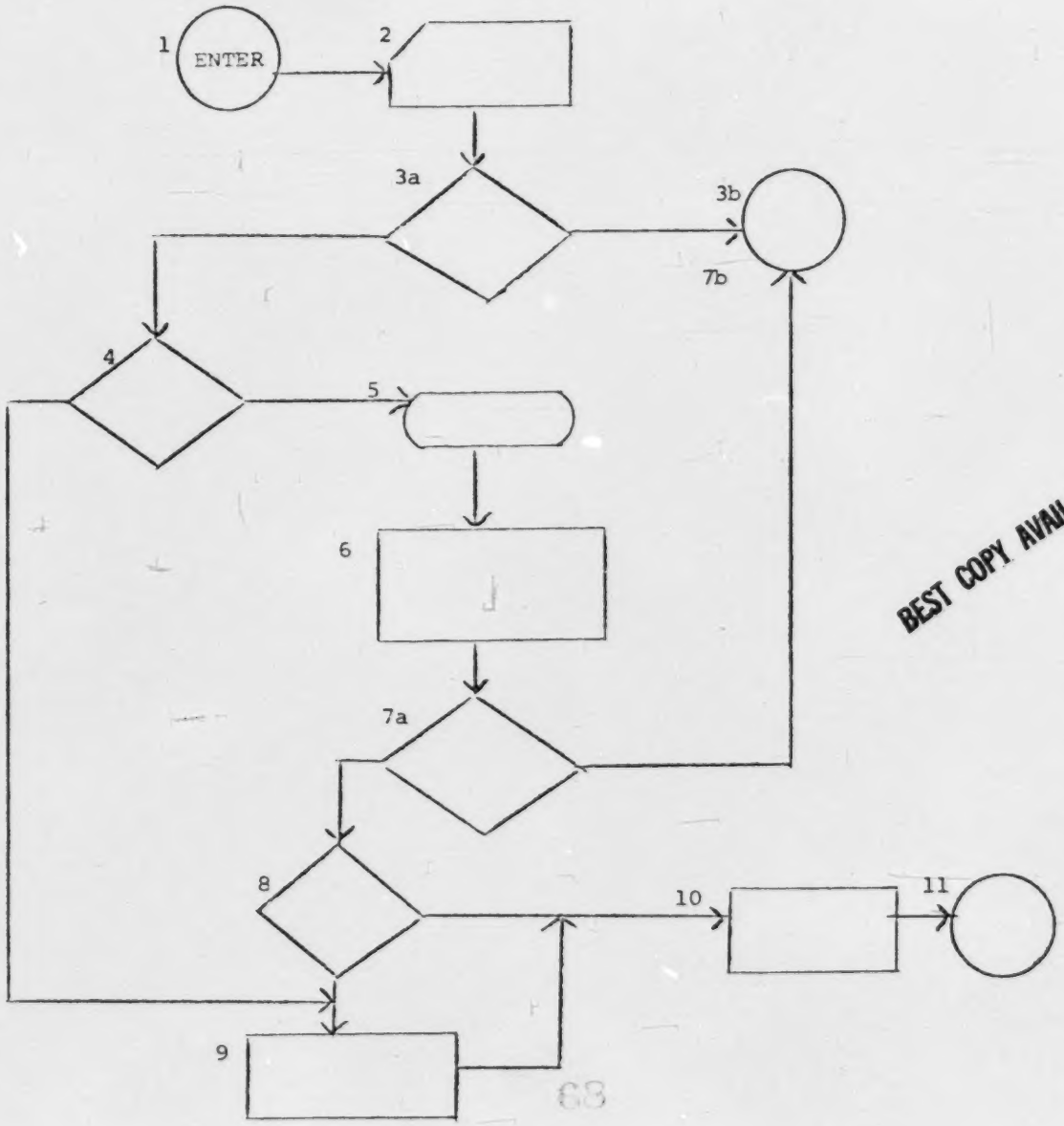
Design a module by labelling the steps i: the flow chart below.

Module Format Steps

1. Student Enters
2.
3a.
3b.
4.
5.
6.
7a.
7b.
8.
9. Enabling Ac ivities
10. Terminal Ac ivities
11.



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